

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

**Central Soya Company, Inc.
413 Cressy Avenue,
Remington, Indiana 47977**

is hereby authorized to construct the equipment listed in the Pages 2 and 3 of this permit.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-073-10488-00011	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

- (a) one (1) soy protein concentrate storage tank # 3, controlled by a concentrate tank/filter

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vent and exhausting at stack Pt # 19;

- (b) one (1) soy protein concentrate spray drier, controlled by two (2) cyclones, and a spray drier baghouse, operating in series and exhausting at stack Pt # 20;
- (c) one (1) soy protein product receiver, controlled by a product baghouse and exhausting at stack Pt # 21;
- (d) one (1) totally enclosed soy protein grinder discharging to a ground product receiver;
- (e) one (1) soy protein ground product receiver, controlled by a ground product baghouse and exhausting at stack Pt # 22;
- (f) one (1) soy protein remote receiver, controlled by a remote baghouse and exhausting at stack Pt # 23;
- (g) one (1) soy protein reject bin, controlled by a reject bin baghouse baghouse and exhausting at stack Pt # 24;
- (h) one (1) soy protein mixer, controlled by a mixer baghouse and exhausting at stack Pt # 25;
- (i) one (1) soy protein packaging surge receiver, controlled by a packaging surge receiver baghouse and exhausting at stack Pt # 26;
- (j) one (1) tote fill receiver, controlled by a tote fill baghouse and exhausting at stack Pt # 27;
- (k) one (1) packaging aspiration receiver, controlled by a packaging aspiration receiver baghouse and exhausting at stack Pt # 28;
- (l) one (1) concentrate tank/filter vent exhausting at stack Pt # 19;
- (m) one (1) spray drier baghouse exhausting at stack Pt # 20;
- (n) one (1) product baghouse exhausting at stack Pt # 21;
- (o) one (1) ground product baghouse exhausting at stack Pt # 22;
- (p) one (1) remote baghouse exhausting at stack Pt # 23;
- (q) one (1) reject bin baghouse exhausting at stack Pt # 24;
- (r) one (1) mixer baghouse exhausting at stack Pt # 25;
- (s) one (1) packaging surge receiver baghouse exhausting at stack Pt # 26;
- (t) one (1) tote fill baghouse exhausting at stack Pt # 27;

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- (u) one (1) packaging aspiration baghouse exhausting at stack Pt # 28; and
- (v) two (2) cyclones, arranged in parallel, and exhausting to spray drier baghouse.

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
 - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

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- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).
 - (e) Pursuant to 326 IAC 2-1-4, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.
7. That when the facility is constructed and placed into operation the following operation conditions shall be met:

Operation Conditions

- General Operation Conditions
- 1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
 - 2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

- Preventive Maintenance Plan
- 3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

- Transfer of Permit
- 4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
 - (a) In the event that ownership of this soy concentrate manufacturing process is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.

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- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, (local agency if applicable) or other public official having jurisdiction.

Performance Testing

7. That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests shall be performed for particulate matter (PM and PM₁₀) from the spray drier within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.

- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
- (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
- (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
- (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results.

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These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.

- (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

Particulate Matter Limitation

8. (a) The PM, and PM₁₀ emissions from the following facilities shall be limited to as stated below:

<u>Facility</u>	<u>PM/PM₁₀</u> (lbs/hr)
Soy concentrate storage	0.0228
Spray drier	3.1
Product receiver	0.137
Ground product receiver	0.137
Remote receiver	0.137
Reject bin	0.137
Mixer	0.0201
Packaging surge receiver	0.013
Tote fill receiver	0.1
Packaging aspiration receiver	0.1

- (b) The cyclones, and the baghouses, which are the inherent parts of the process equipment shall be in operation at all times when the associated facilities are in operation.

Compliance with conditions (a), and (b) makes the control equipment as inherent part of the equipment, and will limit the overall source PTEs of PM, and PM₁₀ to less than 100 tons per year.

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9. PM process operation (326 IAC 6-3)
Pursuant to 326 IAC 6-3 (Process Operations), the PM emissions from the following facilities shall be limited to as stated below.

<u>Facility</u>	<u>PM</u> (lbs/hr)
Soy concentrate storage	1.62
Spray drier	19.41
Product receiver	5.38
Ground product receiver	5.38
Remote receiver	5.38
Reject bin	5.38
Mixer	11.23
Packaging surge receiver	11.23
Tote fill receiver	11.23
Packaging aspiration receiver	5.38

The allowable PM emissions have been determined by the use of the following equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

10. Opacity Limitations
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity shall not exceed an average of forty percent (40%), any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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11. Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the associated equipment, at least once weekly when the associated processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 and 10.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (a) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.
- (b) The gauge employed to take the pressure drop across the baghouses or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (c) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency.

12. Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit.

13. Record Keeping Requirements

- (a) To document compliance with Condition 10, the Permittee shall maintain records of daily opacity notations of the baghouses stacks exhaust.
- (b) To document compliance with Condition 11, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

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- (A) Inlet and outlet differential static pressure; and
- (B) Cleaning cycle: frequency and differential pressure.
- (2) Documentation of all response steps implemented, per event .
- (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
- (4) Quality Assurance/Quality Control (QA/QC) procedures.
- (5) Operator standard operating procedures (SOP).
- (6) Manufacturer's specifications or its equivalent.
- (7) Equipment "troubleshooting" contingency plan.
- (8) Documentation of the dates vents are redirected.

Malfunction Condition

14. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

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MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? _____, 25 TONS/YEAR SULFUR DIOXIDE ? _____, 25 TONS/YEAR NITROGEN OXIDES ? _____, 25 TONS/YEAR VOC ? _____, 25 TONS/YEAR HYDROGEN SULFIDE ? _____, 25 TONS/YEAR TOTAL REDUCED SULFUR ? _____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ? _____, 25 TONS/YEAR FLUORIDES ? _____, 100 TONS/YEAR CARBON MONOXIDE ? _____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? _____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ? _____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ? _____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? _____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: Central Soya Company, Inc. PHONE NO. (219) 425-5849

LOCATION: Remington, Jasper county

PERMIT NO. 073-10488, AFS PLANT ID: 073-00011 AFS POINT ID: _____ INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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**Please note - This form should only be used to report malfunctions
applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name:	Central Soya Company, Inc.
Source Location:	413 Cressy Avenue, Remington, Indiana 47977
County:	Jasper
SIC Code:	2099
Registration No.:	073-10488-00011
Permit Reviewer:	Dr. Tripurari Sinha

The Office of Air Management (OAM) has reviewed an application from Central Soya Company, Inc. relating to the construction and operation of spray drying, product conveying, mixing and receiving processes of soy protein concentrate, consisting of the following equipment:

- (a) one (1) soy protein concentrate storage tank # 3, controlled by a concentrate tank/filter vent and exhausting at stack Pt # 19;
- (b) one (1) soy protein concentrate spray drier, controlled by two (2) cyclones, and a spray drier baghouse, operating in series and exhausting at stack Pt # 20;
- (c) one (1) soy protein product receiver, controlled by a product baghouse and exhausting at stack Pt # 21;
- (d) one (1) totally enclosed soy protein grinder discharging to a ground product receiver;
- (e) one (1) soy protein ground product receiver, controlled by a ground product baghouse and exhausting at stack Pt # 22;
- (f) one (1) soy protein remote receiver, controlled by a remote baghouse and exhausting at stack Pt # 23;
- (g) one (1) soy protein reject bin, controlled by a reject bin baghouse baghouse and exhausting at stack Pt # 24;
- (h) one (1) soy protein mixer, controlled by a mixer baghouse and exhausting at stack Pt # 25;
- (i) one (1) soy protein packaging surge receiver, controlled by a packaging surge receiver baghouse and exhausting at stack Pt # 26;
- (j) one (1) tote fill receiver, controlled by a tote fill baghouse and exhausting at stack Pt # 27;
- (k) one (1) packaging aspiration receiver, controlled by a packaging aspiration receiver baghouse and exhausting at stack Pt # 28;

- (l) one (1) concentrate tank/filter vent exhausting at stack Pt # 19;
- (m) one (1) spray drier baghouse exhausting at stack Pt # 20;
- (n) one (1) product baghouse exhausting at stack Pt # 21;
- (o) one (1) ground product baghouse exhausting at stack Pt # 22;
- (p) one (1) remote baghouse exhausting at stack Pt # 23;
- (q) one (1) reject bin baghouse exhausting at stack Pt # 24;
- (r) one (1) mixer baghouse exhausting at stack Pt # 25;
- (s) one (1) packaging surge receiver baghouse exhausting at stack Pt # 26;
- (t) one (1) tote fill baghouse exhausting at stack Pt # 27;
- (u) one (1) packaging aspiration baghouse exhausting at stack Pt # 28; and
- (v) two (2) cyclones, arranged in parallel, and exhausting to spray drier baghouse.

Air Pollution Control Justification as Integral Part of the Process

The company has submitted the following justifications such that the tank filter vent, cyclone and baghouses be considered as an integral part of the various successive processes of making soy protein product:

- (a) The primary purpose of the various control equipment is to collect product. This process utilizes spray dryers where one cyclone and several baghouses are used to produce and collect product. The process also conveys product from process step to process step and location to location using pneumatic conveying. Numerous smaller baghouses are implemented to exhaust air from these pneumatic conveying steps.
- (b) The dollar amount saved from collecting the material by these equipment is much more than the annual capital cost of the cyclone and baghouses.

The OAM has evaluated the justifications and agreed that the air pollution control will be considered as an inherent part of the process. Therefore, the potential to emit will be determined using the potential emissions after the air pollution control equipment. Operating conditions will be specified in the proposed permit that this air pollution control shall operate at all times when the associated processes are in operation.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
19	Storage of soy concentrate	75	1.0	Confidential	125
20	Spray drying	75	3.0		210

21	Product receiving	45	1.5		135
22	Ground product receiving	45	1.5		180
23	Remote receiving	50	1.0		125
24	Reject receiving	40	1.0		125
25	Mixing	40	1.25		125
26	Packaging surge receiving	55	1.25		120
27	Tote filling	40	1.0		120
28	Packaging aspiration	40	1.0		125

Recommendation

The staff recommends to the Commissioner that the registration be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 22, 1998, with additional information received on March 10, and 29, 1999.

Emissions Calculations

See Appendix A (Emissions Calculation Section) for detailed calculations (Two pages).

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	1,959	16.6
Particulate Matter (PM10)	16.6	16.6
Sulfur Dioxide (SO ₂)	0.1	0.1
Volatile Organic Compounds (VOC)	0.4	0.4
Carbon Monoxide (CO)	5.3	5.3
Nitrogen Oxides (NO _x)	8.2	8.2
Single Hazardous Air Pollutant (HAP)	0.0	0.0
Combination of HAPs	0.0	0.0

- (a) Allowable PM emissions are determined from the applicability of rule 326 IAC 6-3. See attached Appendix A for detailed calculations.

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- (b) The potential PM emissions before control are less than the allowable emissions, therefore, the potential emissions before control are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of PM₁₀ are greater than 15 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Jasper County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Jasper county has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

Source Status

Existing Source PSD emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	57.9
PM ₁₀	57.9
SO ₂	0.283
VOC	1.29
CO	15.9
NO _x	47.3

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- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on Title V Applicability determination submitted by the company on February 24, 1995.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	16.6	16.6	0.10	0.4	5.3	8.2
PSD Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit **CP- 073-10488-00011**, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

Federal Rule Applicability

40 CFR Part 60, Subpart Kb

The soy concentrate storage tank and receivers are not subject to the New Source Performance Standard, 326 IAC 12, and 40 CFR Part 60.110b, Subpart Kb, because they do not store volatile organic liquids (VOLs).

40 CFR Part 61 and 63

326 IAC 14 and 40 CFR 61, and 63 (Emission Standard For Hazardous Air Pollutants)

The facilities under this construction are not subject to Emission Standard For Hazardous Air Pollutants, 326 IAC 14; and 40 CFR 61, and 63 as no hazardous air pollutants covered under these rules are emitted from these facilities.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This facility is not subject to 326 IAC 2-6 (Emission Reporting), because the source is not located in one of the listed counties, and the potential to emit of all criteria pollutants are less than 100 tons per year.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 the particulate matter (PM) emissions from the following facilities shall be limited to as stated below.

<u>Facility</u>	<u>PM</u> (lbs/hr)
Concentrate storage	1.62
Spray drier	19.41
Product receiver	5.38
Ground product receiver	5.38
Remote receiver	5.38
Reject bin	5.38
Mixer	11.23
Packaging surge receiver	11.23
Tote fill receiver	11.23
Packaging aspiration receiver	5.38

The allowable PM emissions have been determined by the use of the following equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The PM emissions from the above facilities are less than those stated above.
 Therefore, all facilities meet the rule 326 IAC 6-3-2.

326 IAC 8-1-6 (General provisions relating to VOC rules: general reduction requirements for new facilities)

The facilities having uncontrolled VOC emissions of 25 tons per year, which are not otherwise regulated by other provisions of this article (326 IAC 8), shall reduce VOC emissions using best available control technology (BACT). The VOC emissions from the drier are less than 25 tons per year. Therefore, the rule 326 IAC 8-1-6 does not apply to the drier.

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326 IAC 2-7 (Part 70 Program)

The cyclone and baghouses, which are inherent part of the process, shall be in operation at all times the associated facilities are in operation. Compliance with this condition creates the PTE of PM10 from this source to less than 100 tons per year.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) None of these listed air toxics will be emitted from this proposed construction.

Conclusion

The construction of this soy concentrate will be subject to the conditions of the attached **Construction Permit No. CP-073-10488, Plt ID No. 073-00011.**

Appendix A (Emissions Calculation Section)
Summary Table
Potential To Emit

Facility	PM (ton/yr)	PM10 (ton/yr)	VOC (ton/yr)	NOx (ton/yr)	SO2 (ton/yr)	CO (ton/yr)	Single HAP (ton/yr)	Comb. HAPs (ton/yr)
Soy concentrate storage	0.1	0.1	0.4	8.2	0.1	5.3	0.0	0.0
Spray drier	13.6	13.6						
Product receiver	0.6	0.6						
Ground product receiver	0.6	0.6						
Remote receiver	0.6	0.6						
Reject bin	0.0	0.0						
Mixer	0.1	0.1						
Packaging surge receiver	0.0	0.0						
Tote fill receiver	0.3	0.3						
Packaging aspiration	0.7	0.7						
Total (tons/yr)	16.6	16.6	0.4	8.2	0.1	5.3	0.0	0.0

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Allowable Determination from rule 326 IAC 6-3-2

$$E = 4.10 P^{0.67} \text{ lbs/hr}$$

where P = Process weight rate in tons/hr

Point ID #	Process weight rate (tons/hr)	Allowable PM emissions (lbs/hr)
19	0.25	1.62
20	10.18	19.41
21	1.50	5.38
22	1.50	5.38
23	1.50	5.38
24	1.50	5.38
25	4.50	11.23
26	4.50	11.23
27	4.50	11.23
28	1.50	5.38